



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,353	04/15/2005	Sheau-Hwa Ma	FAI131USPCT	6242
7590 Sudhir G Deshmukh E I du Pont de Nemours & Company Legal Patents Wilmington, DE 19898		EXAMINER TSOY, ELENA		
		ART UNIT 1792		
		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/531,353

Applicant(s)

MA ET AL.

Examiner

Elena Tsoy

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6, 8, 10, 11, 13 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6, 8, 10, 11, 13 and 15-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

Amendment filed on April 1, 2008 has been entered. Claims 7, 12, 14 have been cancelled. Claims 2-6, 8, 10, 11, 13, 15-24 are pending in the application.

Claim Objections

1. Objection to claim 22 because of the informalities has been withdrawn due to amendment.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-6, 8, 10, 11, 13 and 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swarup et al (US 5506325) in view of Barsotti (US 4411951).

The cited prior art for the reasons of record set forth in paragraph 8 of the Office Action mailed on 11/20/2007.

As to crosslinking component consisting essentially of one or more polyisocyanates,
Swarup et al teaches that acrylic polymer (See column 6, lines 22-48) may be cured using a *crosslinking agent* such as an aminoplast (See column 6, lines 48-50). Other crosslinking agents such as *polyisocyanates* including *blocked polyisocyanates* may also be used (See column 6, lines 50-51). In other words, Swarup et al teaches that **either** aminoplast **or** polyisocyanates including blocked polyisocyanates may be used as crosslinking agent for curing acrylic

polymers. Therefore, Swarup et al teaches that crosslinking agent consisting essentially of polyisocyanates, as required by amended claim 22.

As to claimed molecular weight and polydispersity of claim 22, these limitations were addressed in the previous Office Action as being limitations of now cancelled claim 7.

4. Claims 2-6, 8, 10, 11, 13 and 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barsotti in view of Swarup et al.

The cited prior art for the reasons of record set forth in paragraph 9 of the Office Action mailed on 11/20/2007.

As to crosslinking component consisting essentially of one or more polyisocyanates, Barsotti teaches that a melamine crosslinking agent (See column 3, lines 15-16) is suitable for curing an *acrylic* polymer (See column 3, lines 11-16) having a GPC weight average molecular weight ranging within 500-30,000 (See column 4, lines 13-14, 27-29), and a glass transition temperature of about -20°C to $+25^{\circ}\text{C}$ (See column 4, lines 15-16).

Barsotti fails to teach that instead of melamine, polyisocyanates may be used to cure an *acrylic* polymer (Claim 22).

However, Swarup et al teaches that acrylic polymer (See column 6, lines 22-48) may be cured using a *crosslinking agent* such as an aminoplast (See column 6, lines 48-50). Other crosslinking agents such as *polyisocyanates* including *blocked polyisocyanates* may also be used (See column 6, lines 50-51). In other words, Swarup et al teaches that either aminoplast or polyisocyanates including blocked polyisocyanates may be used as crosslinking agent for curing acrylic polymers. Therefore, Swarup et al teaches that crosslinking agent consisting essentially of polyisocyanates, as required by amended claim 22.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used *polyisocyanate* in Barsotti instead of a melamine crosslinking agent with the expectation of providing the desired curing of acrylic polymer since Swarup et al teaches that either aminoplast or polyisocyanates including blocked polyisocyanates may be used as crosslinking agent for curing acrylic polymers.

5. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swarup et al in view of Barsotti /Barsotti in view of Swarup et al/, further in view of Hazan et al (US 5,244,696) for the reasons of record set forth in paragraph 9 of the Office Action mailed on 12/01/2006.

Response to Arguments

10. Applicant's arguments filed April 1, 2008 have been fully considered but they are not persuasive.

Applicants submit that as currently amended, claim 22 is patentably different from Swamp et al or Barsotti individually, or in combination. Allowance of the amended claim 22 is respectfully requested.

The Examiner respectfully disagrees with this argument for the reasons discussed above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 1792

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy, Ph.D.
Primary Examiner
Art Unit 1792

June 3, 2008

/Elena Tsoy /

Primary Examiner, Art Unit 1792